



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,344	12/29/2000	Jan Suumaki	460-009995-US(PAR)	8635

7590 01/14/2004

Clarence A. Green
Perman & Green, LLP
425 Post Road
Fairfield, CT 06430

EXAMINER

LAMARRE, GUY J

ART UNIT	PAPER NUMBER
----------	--------------

2133

DATE MAILED: 01/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/752,344

Applicant(s)

SUUMAKI ET AL.

Examiner

Guy J. Lamarre, P.E.

Art Unit

2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other:

Art Unit: 2133

DETAILED ACTION

1. Applicant's priority paper and pre-amendment of 29 Dec. 2000 along with the IDS of 18 May 2001 have been entered. The Examiner has considered the IDS.

1.1 Pursuant to 35 USC 131, Claims 1-12 are presented for examination.

Reassignment Affecting Application Location

2. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2133.

Drawings

3. The Drawings are objected to because Figures 1-2 referred to as conventional in the specification on page 6 lines 5-7, should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

4. The headlines and sections are omitted from the specification. The following guidelines illustrate the preferred layout and content for patent applications. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

The following order or arrangement is preferred in framing the specification and, except for the reference to "Microfiche Appendix" and the drawings, each of the lettered items should appear in upper case, without underlining or bold type, as section headings. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) Title of the Invention.
- (b) Cross-References to Related Applications.
- (c) Statement Regarding Federally Sponsored Research or Development.
- (d) Reference to a "Microfiche Appendix" (see 37 CFR 1.96).
- (e) Background of the Invention.

Art Unit: 2133

1. Field of the Invention.
2. Description of the Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) Brief Summary of the Invention.
- (g) Brief Description of the Several Views of the Drawing(s).
- (h) Detailed Description of the Invention.
- (i) Claim or Claims (commencing on a separate sheet).
- (j) Abstract of the Disclosure (commencing on a separate sheet).
- (k) Drawings.
- (l) Sequence Listing (see 37 CFR 1.821-1.825).

4.1 The disclosure is also objected to because the Applicant refers to features described by the claims in passim, e.g., page 1 lines 5, 8, and 10, in the specification. Such features shall be described fully in the disclosure, and not in reference to the claims. The disclosure shall be amended to incorporate therein language of those claims so invoked. See MPEP § 608.01(b).

Appropriate correction is required.

Claim Objections

5. Claims 1-12 are objected to for including therein in passim “characterized in that,” recitation that is apparently superfluous.

5.1 The bracketed alphanumeric information has not been given weight: Such bracketed alphanumeric information shall be described fully in Claims 1-12 to conform with USPTO practice.

5.2 Claims 1-12 are objected to for “*Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps.*” See 37 CFR 1.75 and MPEP 608.01(i)- (p).

Appropriate correction is required.

Claim Rejections - 35 USC ' 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2133

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6.1 Claims 1-12 are rejected under 35 U.S.C. 102 (e) as being anticipated by **Umeuchi et al.** (US Patent No. 6,512,747; Filed: 4 Mar. 1999).

Umeuchi et al. discloses ATM transmission technique that reduces useless traffic via equivalent data transmission protocol means comprising plural structured layers which process data units for transfer therethrough, ATM transmission technique implementable via wired or wireless system.

Such protocol means further comprises ATM packet segmentation / ATM cell assembly means along with error detection means and cell identifying means.

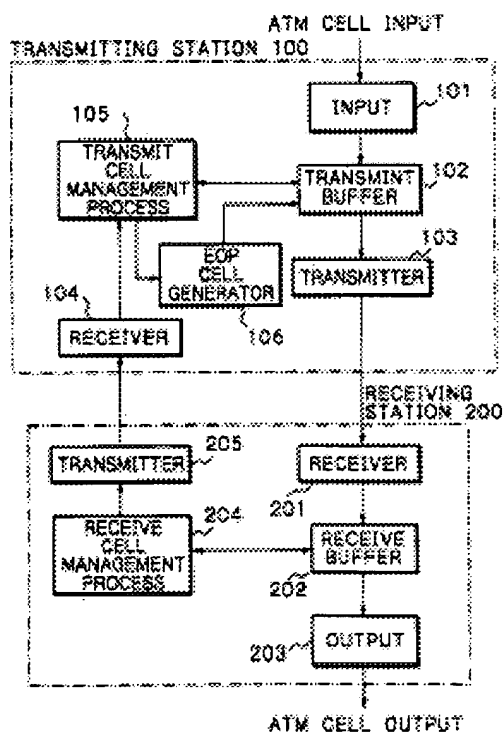
Such protocol means also comprises error locator means wherein transmitted ATM cells detected as erroneous or lost are individually discarded via a selection process so as to obviate the need for a complete packet retransmission to thereby optimize ATM traffic.

As per Claims 1, 11-12, Umeuchi et al. depicts, e.g., in Fig. 1 and related description in col. 3 line 40 et seq., the claimed method for making data transmission in a telecommunication network more effective, which comprises layer structure protocol means for data transmission, which protocol means comprise at least an upper layer and a lower layer, wherein the purpose of the lower layer (col. 3 line 45) is at least to compose a data unit (col. 3 line 44) to be transmitted to the upper layer (col. 3 line 45) from one or more segments (col. 3 line 43, col. 12 lines 45-48 & Fig. 8), in which method one or more errors (col. 3 line 50) occurring in the received segments (col. 3 line 50) is detected wherein said data unit to be transmitted to the upper layer

Art Unit: 2133

(e.g., col. 6 line 15 et seq.) is composed from one or more segments which contain one or more errors (col. 3 line 50), wherein information on the location of one or more errors (col. 3 line 50, col. 3 line 43, col. 12 lines 45-48 & Fig. 8) is also transmitted to the upper layer.

Fig. 1



As per Claim 2, Umeuchi et al. depicts, e.g., in Fig. 1 and related description in col. 3 line 40 et seq., the claimed method in which it is also detected that an entire data unit (col. 3 line 50, col. 3 line 43, col. 12 lines 45-48 & Fig. 8) to be received is missing (col. 3 line 50, col. 3 line 43, col. 12 lines 45-48 & Fig. 8) characterized in that the location of the segment (col. 3 line 50, col. 3 line 43, col. 12 lines 45-48 & Fig. 8) of said missing data unit (col. 3 line 52: lost or missing) in the data unit (6) to be composed is interpreted as an erroneous area (col. 3 line 50, col. 3 line 43, col. 12 lines 45-48 & Fig. 8).

As per Claim 3, Umeuchi et al. depicts, in Fig. 1 and related description in col. 3 line 40 et seq., the claimed method in which the erroneous data units (1 a, 1 b) are corrected in the lower layer within a determined delay using acknowledgements and retransmissions, characterized in that in the lower layer the data unit to be transmitted to the upper layer is composed from segments located in the received data units after all data units are received accurately, or when within a given delay there is not enough time to correct the erroneous or missing data units by means of retransmission, e.g., in Fig. 2: S13, 21 and col. 6 line 45 et seq., for delay, acknowledgements and retransmissions means.

As per Claim 4, Umeuchi et al. depicts, in Fig. 1 and related description in col. 3 line 40 et seq., the claimed method in which the size of the segment (9a, 9b) located in the received data unit is determined in the upper layer (14), characterized in that said error information to be transmitted to the upper layer (14) comprises the sequence number of the segments (9a, 9b) located in the received data unit (1 a, 1 b) and containing the error (5a), wherein in the upper layer (14) the areas (5b) containing the errors (5a) are calculated on the basis of the error information and the size of said segment, e.g., in col. 4 line 19 et seq., for sequence number id means, e.g., *“said transmitting station further comprises means for attaching sequence number to each ATM cell to be transmitted, and said error detection means in said receiving station detects whether a cell is received or lost by checking a sequence number of a received ATM cell.”*

As per Claim 5, Umeuchi et al. depicts, in Fig. 1 and related description in col. 3 line 40 et seq., the claimed method in which the starting point (8a) and the end (8b) of the segments (9a, 9b) located in the received data units and containing one or more errors are determined in the upper layer (14), characterized in that said error information to be transmitted to the upper layer (14) contains the sequence number of those segments (9a., 9b) located in the received data units (1 a, 1 b) in which -the error (5a) is located, wherein the areas (5b) within which the errors

Art Unit: 2133

(5a) are located are calculated in the upper layer (14) on the basis of error information and the starting point (8a) and the end (8b) of said segment (9a, 9b), e.g., in col. 4 line 19 et seq., for sequence number id means, e.g., *“said transmitting station further comprises means for attaching sequence number to each ATM cell to be transmitted, and said error detection means in said receiving station detects whether a cell is received or lost by checking a sequence number of a received ATM cell.”*

As per Claim 6, Umeuchi et al. depicts, in Fig. 1 and related description in col. 3 line 40, the claimed method wherein said segment (9a, 9b) also contains at least control information (4) of the upper protocol layer or a header (3), characterized in that the composed data unit (6) is discarded when the error is located at least partly in such a section of the composed data unit (6) which contains control information (4) of the upper protocol layer or a header, e.g., in Fig. 2: S10a, 16 and col. 4 line 3 et seq., for data discard means.

As per Claim 7, Umeuchi et al. depicts, in Fig. 1 and related description in col. 3 line 40 et seq., the claimed method according to any of claims 1 4e--& in which the starting point (7a) and the end (7b) of the error are determined in the lower layer (12), characterized in that said error information to be transmitted to the upper layer (14) comprises the starting point (7a) and the end (7b) of the error (5a) of the composed data unit, e.g., in col. 3 line 50, col. 3 line 43, col. 12 lines 45-48 & Fig. 8.

As per Claim 8, Umeuchi et al. depicts, in Fig. 1 and related description in col. 3 line 40 et seq., the claimed method wherein the segment (9a, 9b) also comprises at least control information (4) of an upper protocol layer or a header (3), characterized in that the composed data unit (6) is discarded when the error (5a) is located at least partly in such a section of at least partly composed data unit (6) which contains control information (4) of an upper protocol layer or a header, e.g., in Fig. 2: S10a, 16 and col. 4 line 3 et seq., for data discard means

As per Claims 9-10, Umeuchi et al. depicts, in Fig. 1 and related description in col. 3 line 40 et seq., the claimed method characterized in that said lower layer is an RLC layer and said upper layer is a PDCP layer, e.g., col. 1 line 53 et seq., and FIG. 12 depicts plural layers for ATM transmission, and SDU type in col. 6 line 57.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7.1 Any response to this action should be mailed to:

Commissioner of Patents and Trademarks, Washington, D.C. 20231


or faxed to: (703) 872-9306 for formal communications.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, **Fourth Floor** (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guy J. Lamarre, P.E., whose telephone number is (703) 305-0755. The examiner can normally be reached on Monday to Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady, can be reached on (703) 305-9595.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.


Guy J. Lamarre, P.E.
Patent Examiner
1/9/04
